OneOncology™

Driving Healthcare with Data: Transforming the patient experience

Situation

Problem Statement

- The Chicago Cancer Center (CCC) is assessing its transition and growth phase due to, including a new oncologist's arrival and two retirements.

- CCC aims to analyze KPIs like new patient metrics, unique visits, total administrations, and payer mix across various dimensions to understand impacts on patient volume and revenue.

- This analysis is essential for making strategic decisions on expansion, consolidation, and enhancing patient care and financial stability.

Analyses

- The performance impact of adding a new oncologist versus the retirement of existing oncologists on patient volume and revenue.

- Trends and variances in patient diagnoses, provider contributions, clinic location performances, and service type demands.

- The payer mix's role in revenue generation and how different insurance plans affect financial outcomes.

Performance Analysis

Overall
(1 Year)

$14.5M
Revenue

48K
Total Visitations

8267
Unique Patients Treated

$1.76K
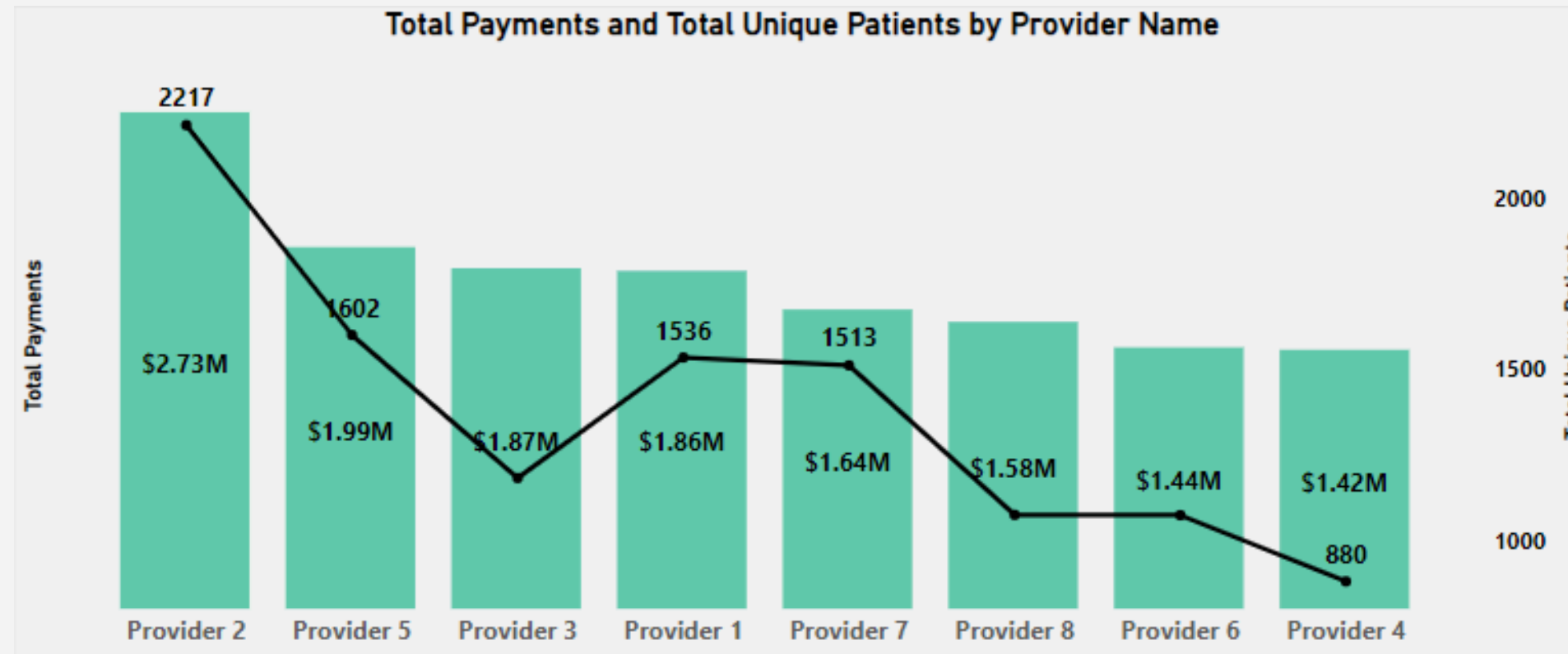Average Revenue Per Patient

141
Average Monthly Patients

- 8,267 unique patients have been treated out of which 70.84% (5856) are Cancer Patients

- Total 48K visits recorded among 5 different visit categories

- The total revenue generated is approximately $14.5M.

- On average, each patient generated roughly $1,756.23 in revenue, while each visit accounted for about $302 of that revenue.

- Office visits contributed the most to revenue, at $9.04M (62.29%), with drug administrations and lab services adding 3.09%.

Performance Analysis

Analysis by Providers

Total Payments and Total Unique Patients by Provider Name

Total Unique Patients by Year, Quarter, Month and Provider Name

- **Overall Provider 2 (P2)** led in revenue and patient volume, averaging $339.96 per patient.

- **P5 achieved** the highest influx of new patients, totaling 653, generating $400,000 in revenue.

- **Key Trends, Outlier, and Insights:** Each provider shows a unique trend over the quarters, with some demonstrating growth in new patient counts, while others exhibit fluctuations or declines.
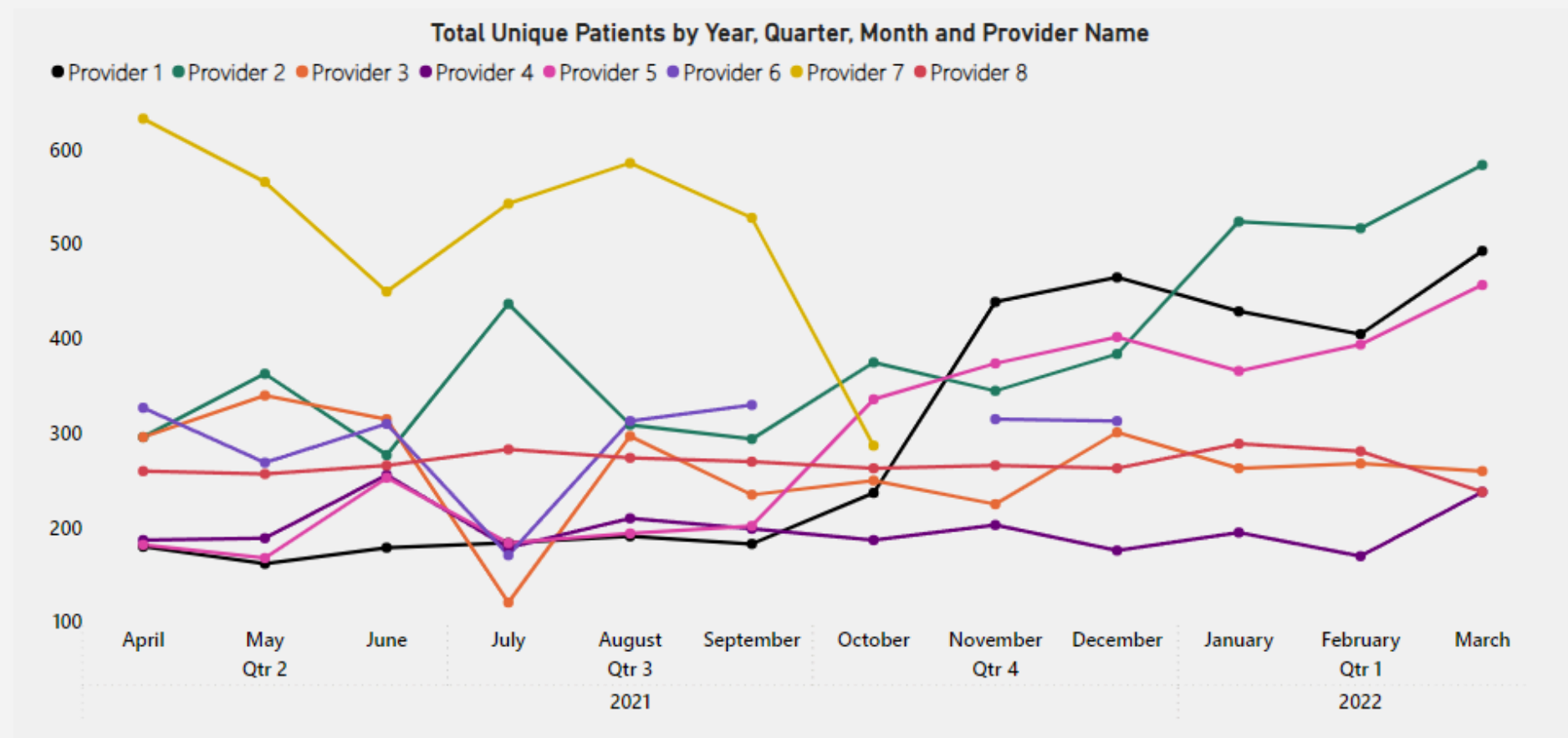
  - P2 showed a steady improvement in numbers P2's consistent patient growth suggests a valuable model for best practices analysis.

  - P3 experienced a significant drop in patient count in July 2021, indicating a need for further investigation to prevent future occurrences.

Performance Analysis

Target Met ▇▇▇▇▇

- P5 and P7 are performing exceptionally well in meeting the new patient target.

- P2 met the target in 75% of the quarters.

- P1, P2 and P3 achieved the target in 50% of the quarters.

- P6 met the target in approximately 33.33% of the quarters.

- P4 and P8 are at the lower end, meeting the target in only 25% of the quarters.

- P4 and P8, however, are lagging behind, with a significantly lower percentage of quarters in which they met the target.

These discrepancies may stem from multiple factors including availability of the proivder, referral patterns, patient demographics, customer satisfaction, practice methodologies, and care delivery approaches.

Year	Quarter	Provider Name	Target	Total New Patients
2021	Qtr 2	Provider 1	80	88
2021	Qtr 3	Provider 1	80	80
2021	Qtr 4	Provider 1	80	45
2022	Qtr 1	Provider 1	80	68
2021	Qtr 2	Provider 2	80	75
2021	Qtr 3	Provider 2	80	86
2021	Qtr 4	Provider 2	80	109
2022	Qtr 1	Provider 2	80	82
2021	Qtr 2	Provider 3	80	91
2021	Qtr 3	Provider 3	80	75
2021	Qtr 4	Provider 3	80	90
2022	Qtr 1	Provider 3	80	76
2021	Qtr 2	Provider 4	80	90
2021	Qtr 3	Provider 4	80	73
2021	Qtr 4	Provider 4	80	48
2022	Qtr 1	Provider 4	80	45
2021	Qtr 2	Provider 5	80	172
2021	Qtr 3	Provider 5	80	126
2021	Qtr 4	Provider 5	80	194
2022	Qtr 1	Provider 5	80	161
2021	Qtr 2	Provider 6	80	81
2021	Qtr 3	Provider 6	80	74
2021	Qtr 4	Provider 6	80	24
2021	Qtr 2	Provider 7	80	111
2021	Qtr 3	Provider 7	80	101
2021	Qtr 2	Provider 8	80	77
2021	Qtr 3	Provider 8	80	84
2021	Qtr 4	Provider 8	80	56
2022	Qtr 1	Provider 8	80	63

Performance Analysis

Analysis by Locations

Clinic Location	Total Payments	Total Patients	Unique Patients	Average Revenue	Average Monthly Patients
Location 1	$7,281,130.5	23481	4400	$310.086	67.85
Location 2	$2,219,672	7122	1197	$311.6641	21.98
Location 3	$1,167,500	3338	557	$349.7603	24.71
Location 4	$3,850,415	14048	2568	$274.0899	47.89
Total	**$14,518,717.5**	**47989**	**8267**	**$302.5426**	**141.22**

New Patients by Location
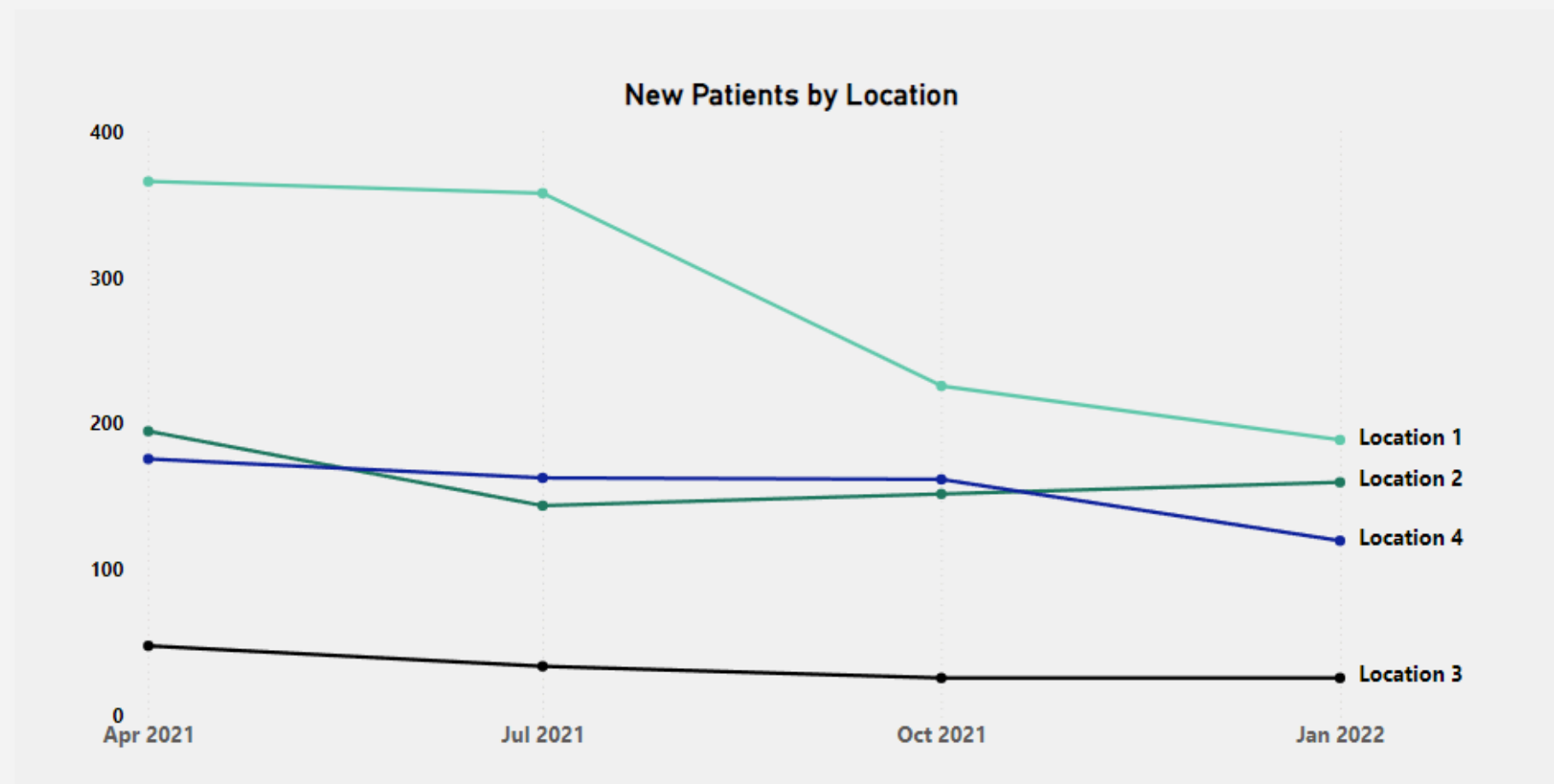
- Location 1 reported a substantial influx of new patients, with quarterly counts varying between 189 and 366.

- Location 2 also demonstrated significant new patient intake, exemplified by 160 new arrivals in the quarter beginning 1/1/2022.

- The data indicates Location 1 consistently surpasses Location 2 in new patient counts, suggesting higher demand, superior outreach, or increased referrals there.

- Despite having the lowest new and total patient numbers, Location 3 averaged the highest revenue per patient across all locations.

P1 VS P6 & P7

Patients and Revenue Trend with Time

Performance Comparison For 2021

Provider 1 treated 1,536 unique patients.

Total Revenue: ~$1.9M ($284.80 per pt)

Provider 1 has partially compensated for the patient volume loss due to the retirement of Providers 6 and 7. Provider 1's increasing patient volume and revenue contribution indicate a positive trend

- Provider 7's patient volume and revenue saw a significant drop in the quarter immediately following their retirement, indicating their substantial contribution to the practice and the immediate impact of their departure.

- Provider 6 saw a gradual decline in patient volume and revenue before their data ceased in Q1 2022 due to retirement.

Performance of Provider 1 is promising, with significant contributions to both patient volume and revenue but with retirement of the two providers, we see the gap created and that can be due to the patients with these two providers moving elsewhere. This can be because of increase in competition in the market or in the decrease in efficiency of the providers.
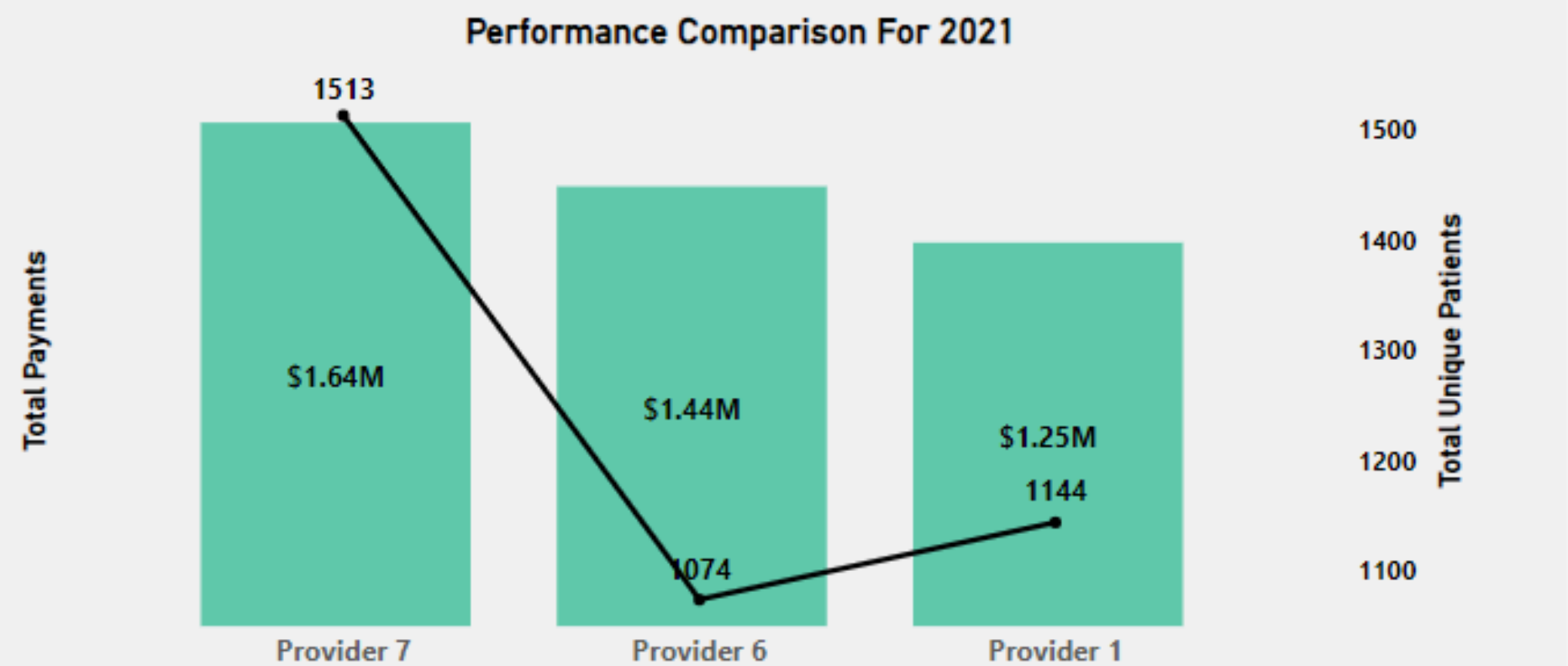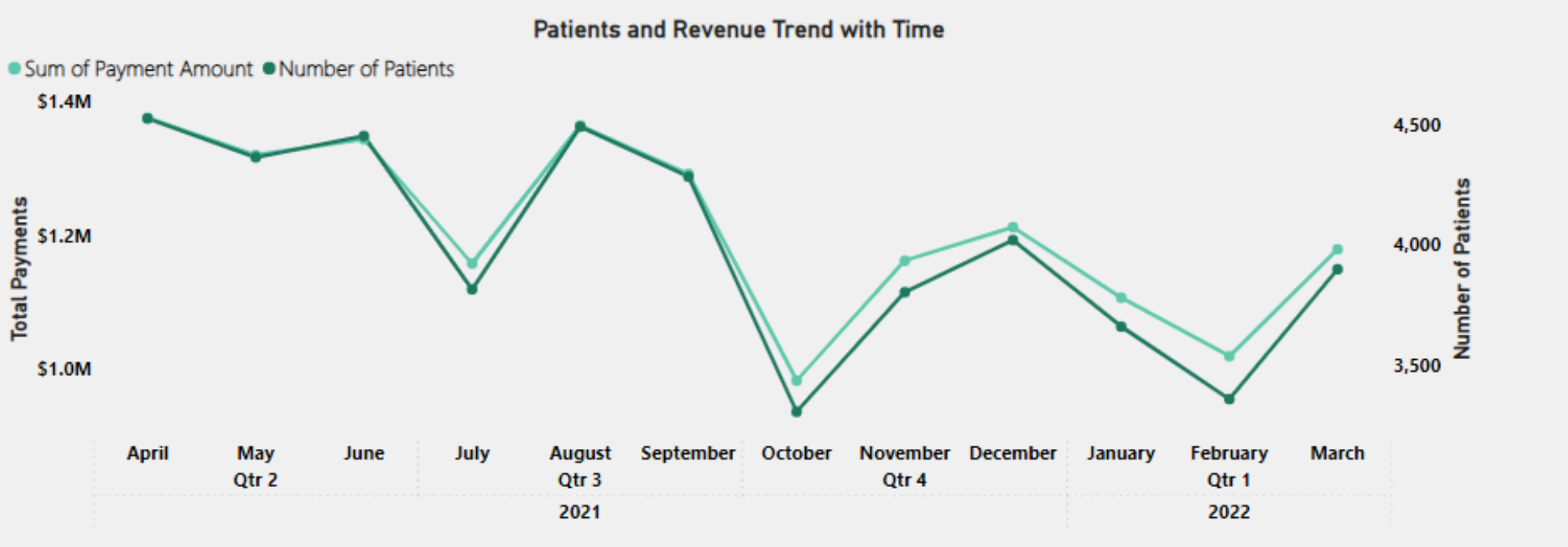
Trend in Payments and Patients

Patients and Revenue Trend with Time

- ● Sum of Payment Amount ● Number of Patients
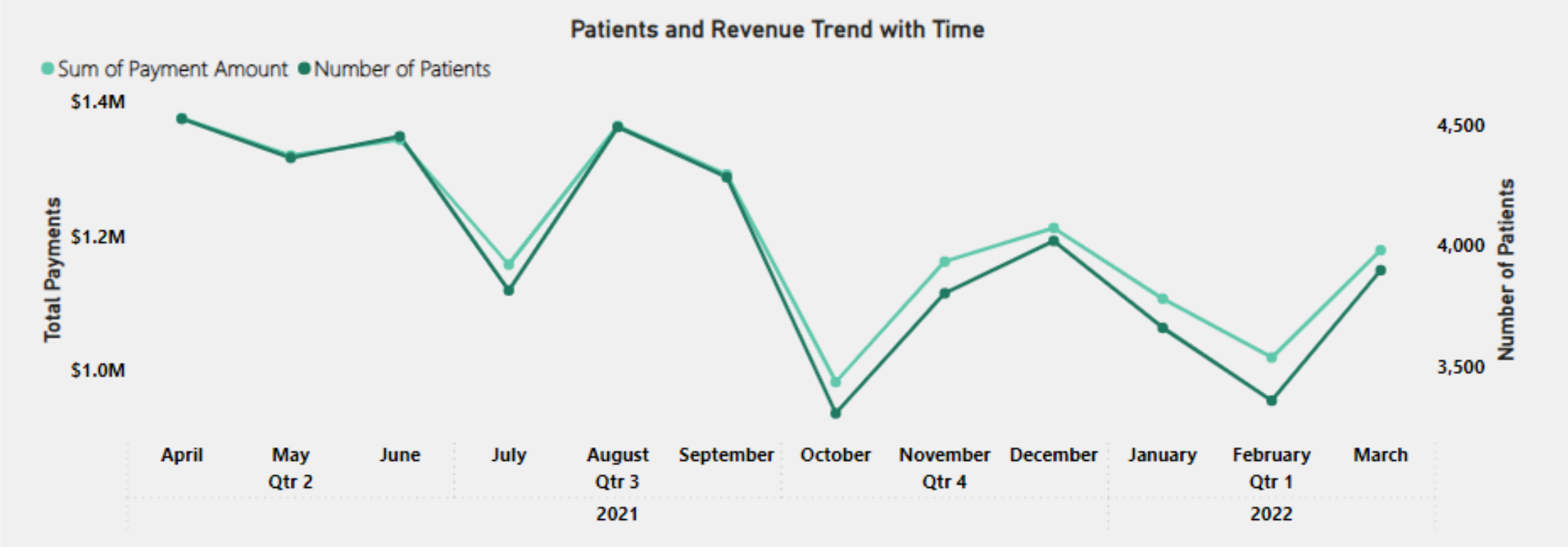
Both positive and negative trends in patient volume and payments, influenced by the changes in its medical oncologist team.

To address the negative trends and capitalize on the positive ones, CCC might consider strategies such as recruiting additional medical oncologists to fill the gaps left by retirements, enhancing marketing efforts to attract new patients, and exploring new services or specializations to diversify its revenue sources.

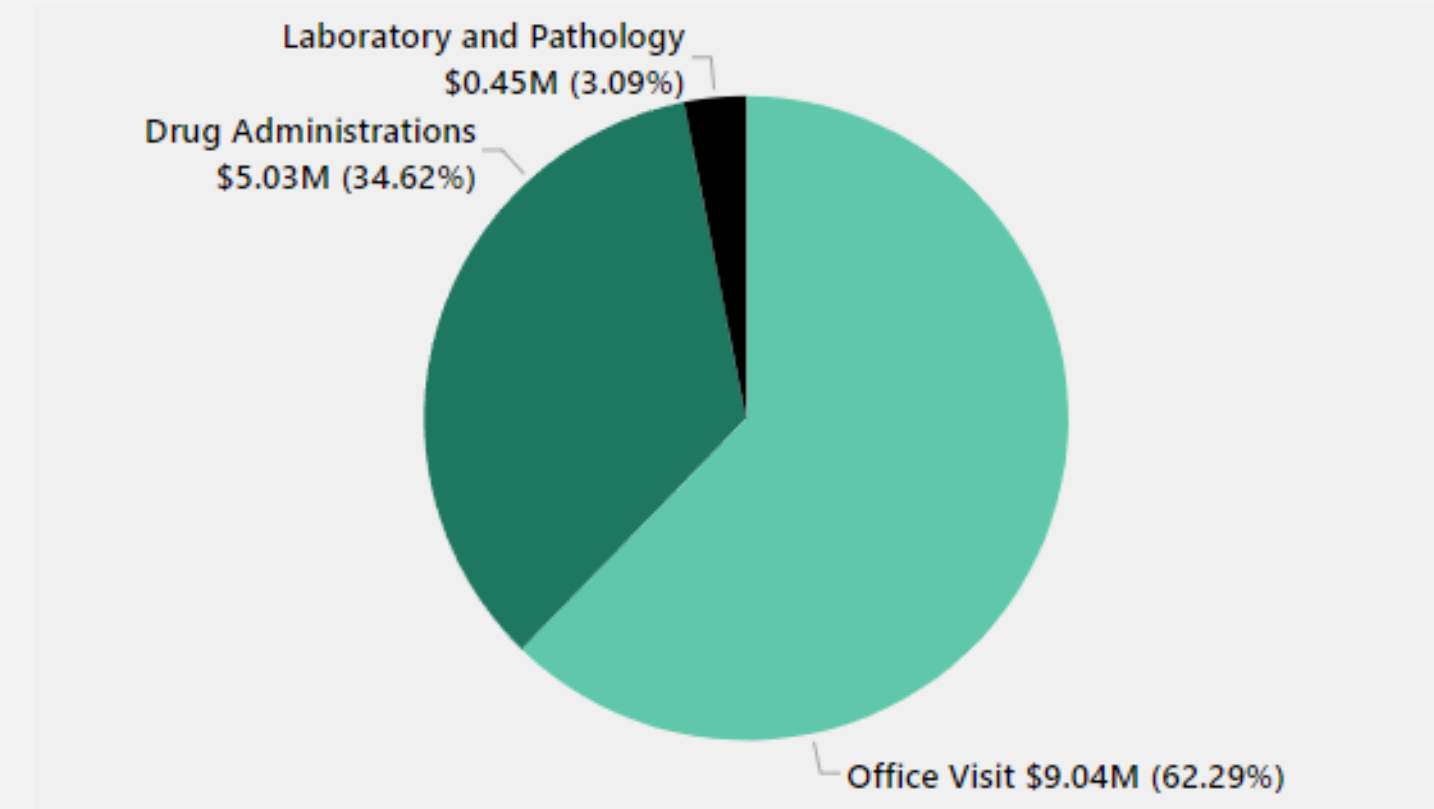| Year	Quarter	Provider Name	Chemo Drug Administrations	Target for Chemo
2021	Qtr 2	Provider 1	331	400
2021	Qtr 3	Provider 1	335	400
2021	Qtr 4	Provider 1	389	400
2022	Qtr 1	Provider 1	443	400
2021	Qtr 2	Provider 2	385	400
2021	Qtr 3	Provider 2	390	400
2021	Qtr 4	Provider 2	377	400
2022	Qtr 1	Provider 2	548	400
2021	Qtr 2	Provider 3	626	400
2021	Qtr 3	Provider 3	408	400
2021	Qtr 4	Provider 3	433	400
2022	Qtr 1	Provider 3	407	400
2021	Qtr 2	Provider 4	362	400
2021	Qtr 3	Provider 4	318	400
2021	Qtr 4	Provider 4	220	400
2022	Qtr 1	Provider 4	270	400
2021	Qtr 2	Provider 5	226	400
2021	Qtr 3	Provider 5	215	400
2021	Qtr 4	Provider 5	472	400
2022	Qtr 1	Provider 5	507	400
2021	Qtr 2	Provider 6	447	400
2021	Qtr 3	Provider 6	369	400
2021	Qtr 4	Provider 6	274	400
2021	Qtr 2	Provider 7	521	400
2021	Qtr 3	Provider 7	529	400
2021	Qtr 4	Provider 7	78	400
2021	Qtr 2	Provider 8	239	400
2021	Qtr 3	Provider 8	282	400
2021	Qtr 4	Provider 8	213	400
2022	Qtr 1	Provider 8	180	400

Conclusion

Strengths:
- Successful Integration of a New Oncologist
- Resilience in Patient Volume
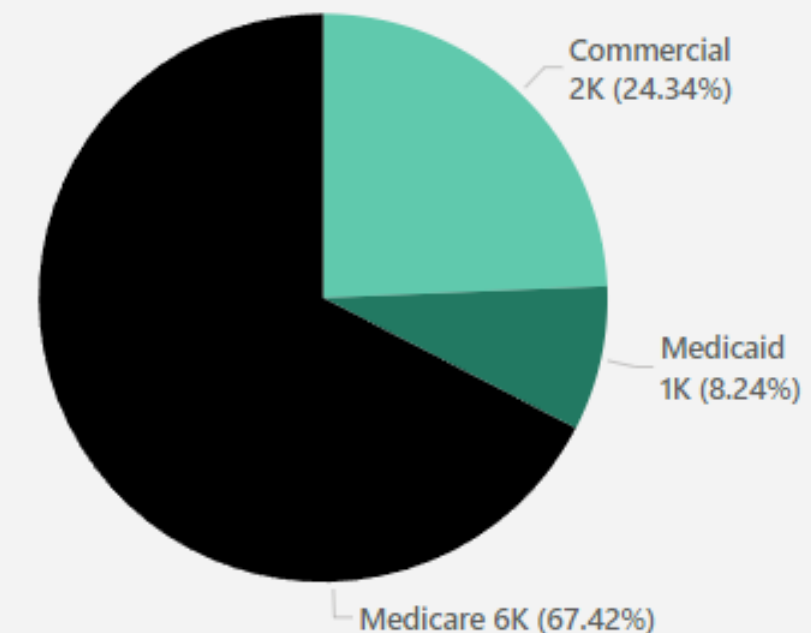- Revenue Generation

Areas of Concern:
- Impact of Retirements
- Fluctuations in Revenue

Recommendations:
- Recruitment and Succession Planning
- Service Expansion
- Operational Efficiency

Laboratory and Pathology $0.45M (3.09%)

Drug Administrations $5.03M (34.62%)

Office Visit $9.04M (62.29%)

Patient Distribution by Payer

Commercial 2K (24.34%)

Medicaid 1K (8.24%)

Medicare 6K (67.42%)

What To Do Now?

Subsequent Analyses
Patient Satisfaction and Outcomes Analysis
- Objective: Evaluate the quality of care through patient satisfaction surveys and health outcomes data.
- Benefits: Can highlight areas of excellence and opportunities for improvement in patient care, impacting patient retention and referrals.

Operational Efficiency Review
- Objective: Evaluate clinic operations, including appointment scheduling, wait times, referral processes.
- Benefits: Identifying bottlenecks or inefficiencies can lead to operational improvements

Data Required
Patient Demographics and Health Information

- Detailed diagnosis information, including the type and stage of cancer
- Treatment histories and outcomes
- Patient comorbidities and overall health status

Operational Data

- Appointment scheduling and wait times data
- Clinic capacity and utilization rates
- Process maps for patient flow and service delivery